

Management requirements to reduce or prevent adverse effects by Bullards Bar Fire Restoration Project.

Potential Resource(s) Affected	Management Requirements Designed to Reduce or Prevent Adverse Effects	Responsible Person(s)
Heritage Resources	Heritage Resources will be designated on the ground prior to implementation of all project activities. Protect Heritage Resources that have been identified on the ground with flagging as well as those identified on maps provided by the District Archaeologist.	District Archaeologist, Layout/Contract Specialist, and Sale Administrator
Heritage Resources	Management of Heritage Resources: Protect all Heritage Resources with flagged control areas. Utilize directional felling methods as appropriate to protect heritage resources. Buffer zones may be designated to ensure added protection. Sale Administrator, Contract Inspector, and/or Archaeologist will walk all sites with purchaser, contractor, or force account staff prior to start of project activities.	District Archaeologist, Layout/Contract Specialist, and Sale Administrator
Heritage Resources	Management of Linear Heritage Resources: Directionally fell trees parallel to or away from linear Heritage Resources (trails, ditches, roads etc.); existing breaches will be used whenever possible; if necessary, new breaches will be designated by the District Archaeologist; and isolated trees inside of linear Heritage Resource features may be felled on a case-by-case basis and with on-the-ground approval of the District Archaeologist.	District Archaeologist, Layout/Contract Specialist, and Sale Administrator
Heritage Resources	<p>Guidelines 2.1(a) for approved Standard Protection Measures established in the 2013 Regional Programmatic Agreement Regarding Compliance with Section 106 of the National Historic Preservation Act.</p> <p>Linear sites (e.g., historic trails, roads, railroad grades, ditches) may be crossed or breached by equipment in areas where their features or characteristics clearly lack historic integrity (i.e., where those portions do not contribute to site eligibility or values).</p> <p>(1) Crossings are not to be made at the points of origin, intersection, or terminus of linear site features.</p> <p>(2) Crossings are to be made perpendicular to linear site features.</p> <p>(3) The number of crossings is to be minimized by project and amongst multiple projects in the same general location.</p> <p>(4) The remainder of the linear site is to be avoided, and traffic is to be clearly routed through designated crossings.</p>	District Archaeologist, layout/Contract Specialist, and Sale Administrator
Heritage Resources	<p>Guidelines 2.1(b) for approved Standard Protection Measures established in the 2013 Regional Programmatic Agreement Regarding Compliance with Section 106 of the National Historic Preservation Act.</p> <p>Accumulation of sufficient snow over archaeological</p>	District Archaeologist, layout/Contract Specialist, and Sale Administrator

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	<p>deposits or historic features to prevent surface and subsurface impacts. Undertaking activities may be implemented over snow cover on historic properties under the following conditions:</p> <p>(1) The cover must have at least 12 inches depth of compacted snow or ice throughout the duration of undertaking activities on sites.</p> <p>(2) All concentrated work areas (e.g., landings, skid trails, turnarounds, and processing equipment sites) shall be located prior to snow accumulation and outside historic property boundaries.</p>	
Heritage Resources	<p>Guidelines 2.1(c) for approved Standard Protection Measures established in the 2013 Regional Programmatic Agreement Regarding Compliance with Section 106 of the National Historic Preservation Act.</p> <p>Placement of foreign, non-archaeological material (e.g., padding or filter cloth) within transportation corridors (e.g., designated roads or trails, campground loops, boat ramps, etc.) over archaeological deposits or historic features to prevent surface and subsurface impacts caused by vehicles or equipment. Such foreign material may be utilized on historic properties under the following conditions:</p> <p>(1) Engineering will design the foreign material depth to acceptable professional standards;</p> <p>(2) Engineering will design the foreign material use to assure that there will be no surface or subsurface impacts to archaeological deposits or historic features;</p> <p>(3) The foreign material must be easily distinguished from underlying archaeological deposits or historic features;</p> <p>(4) The remainder of the archaeological site or historic feature is to be avoided, and traffic is to be clearly routed across the foreign fill material;</p> <p>(5) The foreign material must be removable should research or other heritage need require access to the archaeological deposit or historic feature at a later date; and</p> <p>(6) Indian tribe or other public concerns about the use of the foreign material will be addressed prior to use.</p>	District Archaeologist, Layout/Contract Specialist, and Sale Administrator
Heritage Resources	<p>Guidelines 2.2(a) for approved Standard Protection Measures established in the 2013 Regional Programmatic Agreement Regarding Compliance with Section 106 of the National Historic Preservation Act.</p> <p>Felling and removal of hazard, salvage, and other trees within historic properties under the following</p>	District Archaeologist, Layout/Contract Specialist, and Sale Administrator

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	<p>conditions:</p> <p>(1) Trees may be limbed or topped to prevent soil gouging during felling;</p> <p>(2) Felled trees may be removed using only the following techniques: hand bucking, including use of chain saws, and hand carrying, rubber tired loader, crane/self-loader, helicopter, or other non-disturbing, HPM-approved methods;</p> <p>(3) Equipment operators shall be briefed on the need to reduce ground disturbances (e.g., minimizing turns);</p> <p>(4) No skidding nor tracked equipment shall be allowed within historic property boundaries; and</p> <p>(5) Where monitoring is a condition of approval, its requirements or scheduling procedures should be included in the written approval.</p>	
Heritage Resources	<p>Guidelines 2.2(b) for approved Standard Protection Measures established in the 2013 Regional Programmatic Agreement Regarding Compliance with Section 106 of the National Historic Preservation Act.</p> <p>For fire, and hazardous fuels and vegetation management projects, HPM/DHPS , in conjunction with fuels, vegetation management, or fire specialists as necessary, shall develop treatment measures for <i>at risk</i> historic properties (as defined in SHPO approved Region 5 modules and agreements) designed to eliminate or reduce potential adverse effects to the extent practicable by utilizing methods that minimize surface disturbance, and/or by planning project activities in previously disturbed areas or areas lacking cultural features.</p> <p>(1) The following standard protection measures apply to fire, hazardous fuels, and vegetation management projects:</p> <p>(I) Mechanically treated (crushed/cut) brush or downed woody material may be removed from historic properties by hand, through the use of off-site equipment, or by rubber-tired equipment approved by HPMs or qualified Heritage Program staff. Ground disturbance shall be minimized to the extent practicable during such removals.</p> <p>(J) Woody material may be chipped within the boundaries of historic properties so long as the staging of chipping equipment on-site does not affect historic properties and staging areas are specifically approved by HPMs or qualified Heritage Program staff.</p> <p>(K) HPMs shall approve the use of tracked equipment to remove brush or woody material from within</p>	District Archaeologist, Layout/Contract Specialist, and Sale Administrator

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	specifically identified areas of site boundaries under prescribed measures designed to prevent or minimize effects. Vegetative or other protective padding may be used in conjunction with HPM authorization of certain equipment types within site boundaries.	
Heritage Resources	Logging Camps: Proposed logging camps and other staging areas need to be agreed upon with the District Archaeologist prior to use.	District Archaeologist, Layout/Contract Specialist, and Sale Administrator
Lands	Protect land survey signs and monuments, even if burned, or laying on the ground.	Layout/Contract Specialist, Fuels Specialist, Sale Administrator, and Public Service Officer
Nonnative Invasive Plants (NNIP) - Prevention	Clean all off-road equipment entering the project area if it may be coming from areas infested with nonnative invasive plants (NNIP).	Botanist, Fuels Officer, Project Implementation Teams, Contract Administrators
Nonnative Invasive Plants (NNIP) - Prevention	<p>To the greatest extent feasible keep all equipment, vehicles, and supplies out of areas of known NNIP infestations, including any NNIP infestations that may be discovered during project implementation. NNIP infestations will be flagged with bright orange “noxious weed” flagging prior to project implementation and refreshed as necessary.</p> <ul style="list-style-type: none"> <li>Any equipment, vehicles, and supplies that do come in contact with NNIP infestations (plants or the ground close to them) during project implementation should be thoroughly cleaned of dirt, mud, and plant debris before entering any un-infested project area.</li> <li>Hand cutting of broom plants and placement of burn piles on top of NNIP infestations is encouraged (new infestations should be mapped and reported to the District Botanist).</li> </ul>	Botanist, Fuels Officer, Project Implementation Teams, Contract Administrators
Nonnative Invasive Plants (NNIP) - Prevention	<p>Members of the project implementation teams (layout crew, contract administrator, etc.) should watch for and be able to recognize NNIP. New infestations should be mapped and reported to the District Botanist, and flagged and avoided.</p> <ul style="list-style-type: none"> <li>When time allows, pull some or all of NNIP encountered during project activities (avoiding archaeology controlled areas).</li> </ul>	Botanist, Project Implementation Teams, Contract Administrators
Nonnative Invasive Plants (NNIP) - Prevention	Monitor areas of project related ground disturbance (e.g. skid trails, temp roads, landings, trails, etc.) for NNIP for 1-2 years following project implementation, and pull NNIP when found. New infestations should be mapped and reported to the District Botanist.	Botanist and Implementation Team
Nonnative Invasive Plants (NNIP) -	Ensure that all plant material and fill material used for erosion control and/or road maintenance is free of NNIP, including straw, mulch, gravel, and rock	Nonnative Invasive Plants (NNIP) - Prevention

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Prevention	( <i>certified weed-free</i> ).	
Rare Plants - Conservation	None known.	Botanist
Recreation and Public Use	Provide for public safety and education by posting signs to inform public of project activities. Whenever possible, post notices on PNF website prior to treatments. Keep information current.	Recreation Specialist, Fuels Officer
Recreation and Public Use	If woodland firefighters use the trail for direct- or indirect-attack fire suppression, fire recovery will include returning the trail to NFS system trail standards. Consult with recreation specialist prior to trail rehabilitation.	Recreation Specialist, Fuels Officer
Scenery Resources	To protect scenery resources – piles within the trail and road viewsheds, within the New Bullards Bar Recreation Area, will be prioritized for burning.	Recreation Specialist, Fuels Officer
Silviculture	<p>Minimizing impacts from slash breeding bark beetles in pine plantations, adjacent to pine plantations, or within pine dominated timber stands.</p> <ol style="list-style-type: none"> <li>1. If possible, conduct pre-commercial thinning or pruning operations from June through October to minimize the buildup and subsequent damage of slash breeding insects, such as the pine engravers (<i>Ips</i> spp.), to the residual stand.</li> <li>2. If creating green pine slash is unavoidable during the high-risk months (December through May), several slash treatments are available to help minimize potential impacts. <ol style="list-style-type: none"> <li>a. Chipping: If there is adequate road access, then chip the activity slash.</li> <li>b. Lopping and Scattering: slash shall be lopped and scattered away from the bole of leave trees so that it lies outside of the drip line.</li> <li>c. Piling: keep the piles small and pile smaller material in the center with larger material piled on the outside to promote a more uniform drying of all sized material. Burn as soon as practicable.</li> </ol> </li> </ol>	Contract Specialist and Sale Administrator
Silviculture	<p>Hand Cutting, Piling, and Burning.</p> <ol style="list-style-type: none"> <li>1. Leaner's/Hang-ups - No contractor created slash shall be left suspended by, or lean against, a leave tree; whether it is dead or alive.</li> <li>2. Lopping and Scattering: Slash shall be lopped and scattered away from the bole of residual leave trees so that it lies outside of the drip line.</li> <li>3. Piling and burning: Piles shall be placed away from residual leave trees to avoid being scorched during burning. Piles cannot be located on or</li> </ol>	Contract Specialist and Sale Administrator

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	against stumps and logs.													
Silviculture	Hardwood Management  1. Retain all large hardwoods (12 inches dbh or greater) on the Westside, except where large trees pose an immediate threat to human life or property.  2. Within riparian zones, wetlands, and meadows, minimize damage to riparian species.	Contract Specialist and Sale Administrator												
Fire and Fuels	Activity Generated Slash adjacent to FS roads. Pile all activity generated slash 100’ depth of project area, and covered with waterproof covering for burning during winter months (attachment).  Piling and Burning Landings: Landings created for optimal winter weather burning. Waterproof covering on multiple locations of pile.  Landing Temp Roads: Landings created for burning need to have roads accessible for fire engine access during ignition and monitoring phases.  Landing Placement: Landing can scorch and burn live trees 50-100 feet in distance.  Landing Fire Lines: 6-10 foot fire line created around each landing.	Contract Specialist, Sale Administrator, and Fuels Implementation Team												
Watershed, Soils, and Aquatic Resources	<table><tr><td colspan="2">Establish Riparian Conservation Areas (RCAs) for all aquatic features, as specified below. Ensure Riparian Conservation Objectives (RCOs) are met within RCAs by adhering to the Project Riparian Conservation Area (RCA) Guidelines. These guidelines specify the types of activities that can be conducted within RCAs and mitigation measures to minimize impacts to aquatic feature and riparian ecosystems. RCA widths are as follows:</td></tr><tr><td>Stream Type</td><td>Width of the Riparian Conservation Area</td></tr><tr><td>Perennial Streams</td><td>300 feet each side, measured from bank-full edge</td></tr><tr><td>Seasonal Flowing Streams</td><td>150 feet each side, measured from bank-full edge</td></tr><tr><td>Streams In Inner Gorge</td><td>Top of inner gorge</td></tr><tr><td>Meadows, lakes, and springs</td><td>300 feet from edge of feature or riparian vegetation, whichever is greater</td></tr></table>	Establish Riparian Conservation Areas (RCAs) for all aquatic features, as specified below. Ensure Riparian Conservation Objectives (RCOs) are met within RCAs by adhering to the Project Riparian Conservation Area (RCA) Guidelines. These guidelines specify the types of activities that can be conducted within RCAs and mitigation measures to minimize impacts to aquatic feature and riparian ecosystems. RCA widths are as follows:		Stream Type	Width of the Riparian Conservation Area	Perennial Streams	300 feet each side, measured from bank-full edge	Seasonal Flowing Streams	150 feet each side, measured from bank-full edge	Streams In Inner Gorge	Top of inner gorge	Meadows, lakes, and springs	300 feet from edge of feature or riparian vegetation, whichever is greater	Planning Forester, Prep Forester, Sale Administrator, and Hydrologist
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Watershed, Soils, and Aquatic Resources	National Core BMP AqEco-2 Operations in Aquatic Ecosystems, Veg-3 Aquatic Management Zones Allowable treatment within RCAs by treatment type: Mastication: <ul style="list-style-type: none"><li>• Apply a 50 ft. buffer on both sides of all stream types. No mechanical treatment within this</li></ul>	Planning Forester, Prep Forester, Sale Administrator, and Hydrologist												

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	<p>buffer.</p> <p>Handcut Grapple Pile Burn:</p> <ul style="list-style-type: none"> <li>May hand cut within entire RCA. Burn piles may be ignited independent of an underburn.</li> <li>Piles should be at least 50 ft. from edge of stream bank. No mechanical treatment within this buffer.</li> </ul> <p>Handcut Pile Burn:</p> <ul style="list-style-type: none"> <li>May hand cut within entire RCA. Burn piles may be ignited independent of an underburn.</li> <li>Piles should be at least 25 ft. from the edge of stream bank.</li> </ul> <p>Underburn:</p> <ul style="list-style-type: none"> <li>Underburn will be allowed within the RCA. Fire will be ignited within 300 ft. of perennial and 150 ft. of seasonal flowing streams and allowed to back into the stream under the ideal conditions for underburning.</li> </ul> <p>Planting:</p> <ul style="list-style-type: none"> <li>May plant within entire RCA.</li> </ul>	
Watershed, Soils, and Aquatic Resources	<p>National Core BMP Veg-2 Erosion Prevention and Control</p> <p>Limit ground-based equipment to slopes less than 25% within all RCAs.</p>	Planning Forester, Prep Forester, Sale Administrator, Hydrologist, Soil Scientist
Watershed and Soils	<p>National Core BMP AqEco-2 Operations in Aquatic Ecosystems. Region 5 BMP 1-5 Limiting the Operating Period of Timber Sale Activities, BMP 1-13 Erosion Prevention and Control Measures During Timber Sale Operations</p> <p>Limiting Operation Period for soil moisture: Allow mechanical operations only when soil moisture conditions are such that compaction, gulying, and/or rutting will be minimal. Conduct ground based harvest operations when soil is dry; that is, in the spring when soil moisture in the upper 8 inches is not sufficient to allow a soil sample to be squeezed and hold its shape, or will crumble when the hand is tapped. In the summer and early fall after storm event(s) when soil moisture between 2-8 inches in depth is not sufficient to allow a soil sample to be squeezed and hold its shape, or will crumble when the hand is tapped. Off of designated skid trails, limit all equipment passes over the same piece of ground to reduce the potential for adverse soil compaction.</p>	Sale Administrator, COR, Soil Scientist, and Hydrologist
Watershed, Soils, and Aquatic Resources	<p>National Core BMP Road-10 and Region 5 BMP 2.11—Equipment Refueling and Servicing</p> <p>Refuel and service equipment only in designated staging areas. Fuel outside of riparian areas. 300 feet on perennial and 150 feet on seasonal flowing streams.</p>	Sale Administrator, COR, Soil Scientist, and Hydrologist

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Wildlife & Aquatics	Limited Operation Period (LOP) <u>California Spotted Owl</u> : No activity between March 1 – July 31, within PAC, unless surveys are conducted and confirm non-nesting or young have fledged for year. <u>California Red-Legged Frog</u> : No activity from October 1 – April 15, or first wetting rains, within 50 feet of perennial or intermittent streams.	Wildlife Biologist, Fuels Implementation Team
Wildlife	Report all mine openings to the wildlife biologist that are identified during project layout. Coordinate any marking of trees and all activities within 500 feet of mine openings.	Wildlife Biologist, Fuels Implementation Team
Wildlife	Incidental detections of federally-listed and sensitive species prior to or during project implementation will be reported to the District Wildlife Biologist for protection in accordance with management direction for the Plumas National Forest.	Wildlife Biologist, Fuels Implementation Team